

JUL 05 2006

Docket No. 1374.39812VV2

Serial No. 10/639,465

July 5, 2006**REMARKS**

Applicants have amended claim 12 in order to further clarify the definition of the present invention set forth therein. Specifically, claim 12 has been amended to recite that a width of the SiGe layer of the at least one gate electrode is substantially equal to that of other layers of the at least one gate electrode, after the step (d). Step (d) is the step of subjecting the semiconductor wafer to a plasma processing in an atmosphere of a mixed gas of a first gas less reactive to Ge as compared with oxygen gas and a second gas having a function of etching Si. In connection with claim 12 as presently amended, note, for example, paragraphs [0118] and [0119] on page 29 of Applicants' specification.

Applicants have cancelled claims 2-4 and 18-20 from the above-identified application, without prejudice or disclaimer.

Applicants respectfully traverse the rejection of claim 12 under the second paragraph of 35 USC 112, as being indefinite, set forth in Item 6 on page 4 of the Office Action mailed April 5, 2006, especially insofar as applicable to the claims as presently amended. Thus, the suggestion by the Examiner to reword claim 12 is noted. Applicants have reworded claim 12, reciting relative widths of the SiGe layer of the at least one gate electrode and of other layers of the at least one gate electrode, after the processing step (d). Noting, for example, Figs. 9(a) and 9(b), and descriptions in connection therewith especially in paragraphs [0118] and [0119] on page 29 of Applicants' specification, it is respectfully submitted that one of ordinary skill in the art would know whether a specific method of fabricating a semiconductor integrated circuit device fell within or outside the scope of claim 12. In particular, one of ordinary skill in the art would know whether a specific semiconductor integrated circuit device was formed by processing wherein a width of

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the SiGe layer of the at least gate electrode was substantially equal to the width of other layers of the at least one gate electrode. It is respectfully submitted that, under the present circumstances, the second paragraph of 35 USC 112 requires nothing more. See In re Moore, 169 USPQ 236 (CCPA 1971).

The statement by the Examiner in Item 6 on page 4 of the Office Action mailed April 5, 2006, that he "has no idea what [Applicants are] trying to claim [in claim 12]", is noted. As can be seen in the foregoing, and as is clear from paragraphs [0118] and [0119] of Applicants' specification, especially in light of paragraphs [0109]-[0117] on pages 26-29 of Applicants' specification, according to an aspect of the present invention, after the post processing side etching of the side faces of the SiGe layer can be substantially avoided, whereby the vertical shape of the side faces of the gate electrode can be retained. In other words, by avoiding side etching of SiGe, retaining the vertical side structure, the width of the SiGe layer is substantially equal to the width of other layers, of the at least one gate electrode. It is respectfully submitted that this aspect of the present invention is sufficiently definite as set forth in present claim 12, so as to satisfy the requirements of the second paragraph of 35 USC 112.

The nonstatutory obviousness-type double patenting rejection, over claims 1-29 of U.S. Patent No. 6,479,392, set forth in Items 3-5 on page 3 of the Office Action mailed April 5, 2006, is noted. This appears to be a "provisional" rejection, based upon Applicants overcoming the double patenting rejection under 35 USC 101 set forth in Item 2 on page 2 of the Office Action mailed April 5, 2006.

In any event, for facilitating proceedings in connection with the above-identified application, enclosed please find a Terminal Disclaimer for the above-identified application, with respect to U.S. Patent No. 6,479,392. In view of the

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submission of this Terminal Disclaimer, any obviousness-type double patenting rejection of the claims of the above-identified application, over claims 1-29 of U.S. Patent No. 6,479,392, is moot.

The present submission of the enclosed Terminal Disclaimer is for facilitating proceedings in connection with the above-identified application. Present submission of this Terminal Disclaimer does not constitute agreement with, or an admission as to the propriety of, this obviousness-type double patenting rejection; and does not constitute agreement with, or an admission as to the propriety of, arguments made by the Examiner in connection with this obviousness-type double patenting rejection.

Applicants respectfully traverse the rejection of their claims under 35 USC 101 as claiming the same invention as that of claims 1-29 of prior U.S. Patent No. 6,479,392. Initially, note that claims 2-4 and 18-20 have been cancelled without prejudice or disclaimer. Accordingly, any issue as to the same subject matter being claimed in claims 2-4 and 18-20, as compared with claims 2-4 and 18-20 of U.S. Patent No. 6,479,392, is moot. That is, clearly any issue as to the same gas being claimed as the first gas in claims 2-4 and 18-20 of the above-identified application, as compared with claims 2-4 and 18-20 of U.S. Patent No. 6,479,392, is moot in view of canceling of present claims 2-4 and 18-20.

As to the remaining claims in the above-identified application, note that these claims recite, in step (d), that the semiconductor wafer is subjected to a plasma processing in an atmosphere of a mixed gas of a first gas "less reactive to Ge as compared with oxygen gas" and a second gas having a function of etching Si. It is respectfully submitted that the Examiner has not established that recitation of a first gas "less reactive to Ge as compared with oxygen gas" is of identical scope with the first gas as recited in No. 6,479,392, which is a gas "hardly reactive to Ge".

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In this regard, the Examiner contends that it is "inherent" that the first gas which is hardly reactive to Ge, which is claimed in the claims of U.S. Patent No. 6,479,392, is "of the same scope" as the first gas which is claimed in the present application "(i.e.-a first gas less reactive to Ge as compared to oxygen)". Such contention by the Examiner of inherency, without any evidence or reasoning in support thereof, is improper under the guidelines of 35 USC 102 and 35 USC 103. See In re McKellin, 188 USPQ 428 (CCPA 1976).

In this regard, the case law cited by the Examiner in the third paragraph of Item 2 on page 2 of the Office Action mailed April 5, 2006, is noted. Neither of the two cited cases pertain to a same-invention-type double patenting issue, which requires claims in the respective application and patent to be of identical scope in order for the rejection to be proper. Clearly, there are many gasses utilized in plasma processing of semiconductor structure; and it is respectfully submitted that the Examiner has not established that the recitation of a first gas "hardly reactive to Ge" is of identical scope to a first gas "less reactive to Ge as compared with oxygen gas", as in the present claims.

The contention by the Examiner that only inert gasses "(i.e.-N₂, Ar, etc.)" seem to meet the criterion of a gas which is more reactive with oxygen and which is hardly reactive with Ge, is noted. The Examiner has provided no basis for this contention. In addition, it is noted that N₂ is not an inert gas. In this regard, compare claim 2 with claim 4, and claim 18 with claim 20, of the above-identified application.

In addition, note paragraph [0121] on page 30 of Applicants' specification. It is indicated therein that various gasses can be used as the first gas in the post processing step (e.g., step (d)), and examples are set forth. Especially in view thereof, it is respectfully submitted that the Examiner has not established that the

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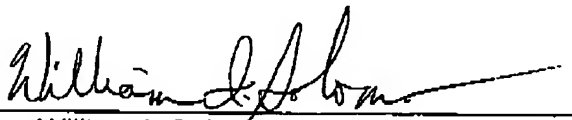
subject matter of the present claims, including use of the "first gas less reactive to Ge as compared with oxygen gas", is of identical scope as the claims of U.S. Patent No. 6,479,392, including a first gas "hardly reactive to Ge".

In view of the foregoing comments and amendments, reconsideration and allowance of all claims presently in the application are respectfully requested.

Applicants request any shortage in fees due in connection with the filing of this paper be charged to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (case 1374.39812VV2), and credit any excess payment of fees to such Deposit Account.

Respectfully submitted,

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Attachment: Terminal Disclaimer (3 pp.)

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